

The United States MILLER

Devoted to Flour, Grain, Milling, Manufacturing and Commercial Interests.

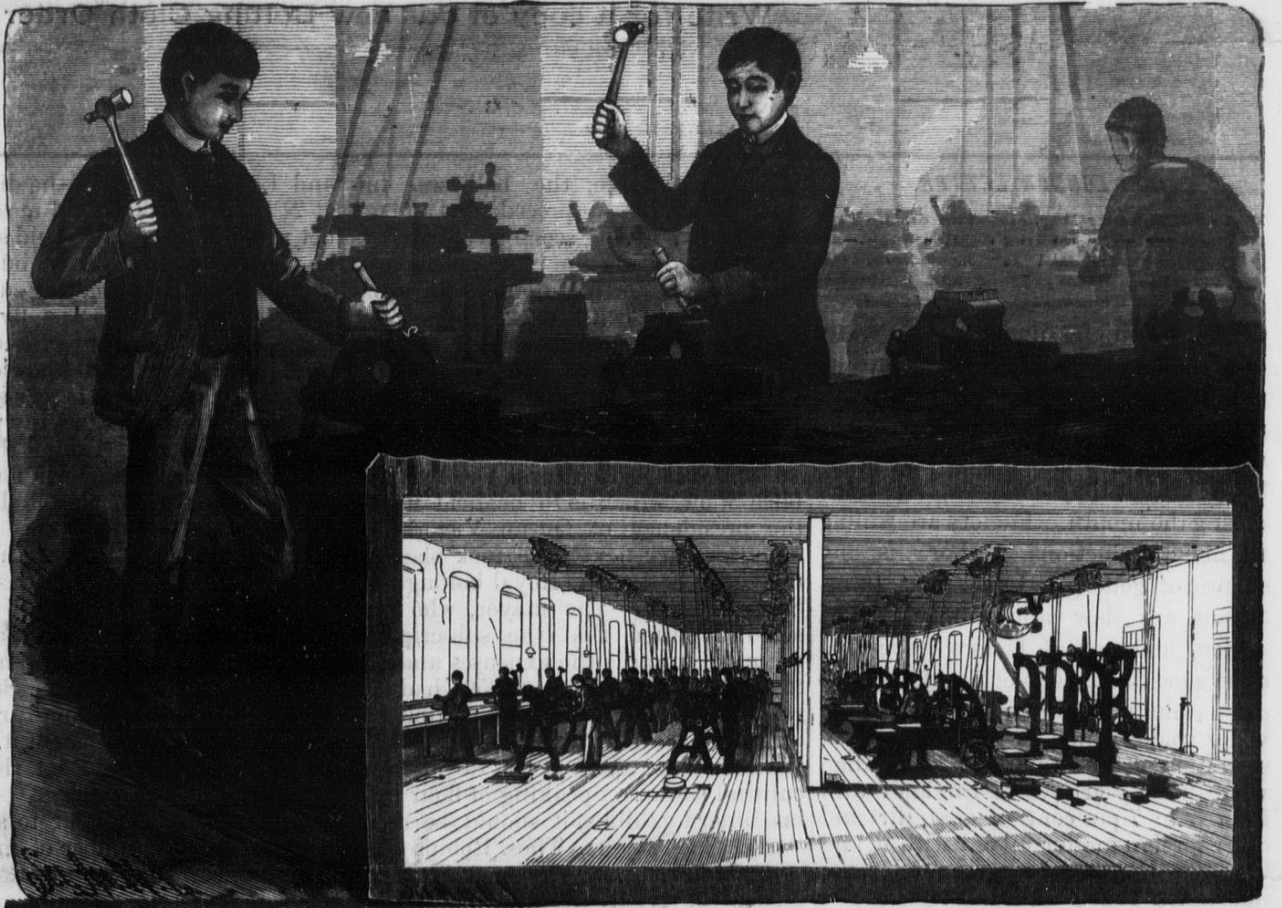
Fourteenth Year.—No. 2.

MILWAUKEE, FEBRUARY, 1889.

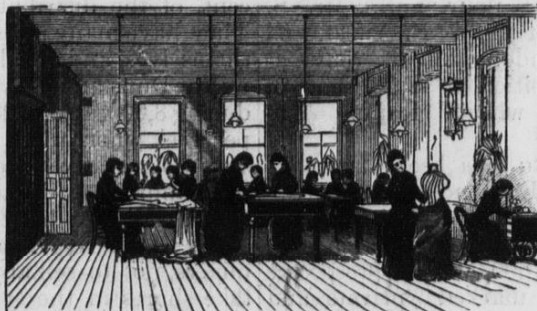
Subscription Price, \$1.00 Per Year.



THE COOKING SCHOOL.



THE MACHINE SHOP.



THE DRESSMAKING DEPARTMENT.



THE PRATT INSTITUTE FOR INDUSTRIAL EDUCATION BROOKLYN, N. Y.—THE TRADES SCHOOL.



BUY YOUR BOLTING AND WIRE CLOTH

AT FIRST HAND AND GET THE BEST IN QUALITY & PRICE

OUR SPECIALTIES

GENUINE DUFOUR BOLTING CLOTH,
PAT. METALIC FASTENED WIRE CLOTH BINDING.

ALL WORK GUARANTEED

EDW. P. ALLIS & CO., RELIANCE WORKS, MILWAUKEE, WIS.

Write for a copy of our new Bolting Cloth Order Book.

OUR LONDON LETTER.

Review of January Markets.—Fun on the Corn Exchange.—The Coming Jubilee Show.—An English Model Mill for Exhibition.—The Flour Ring.—Heavy Flour and Grain Exports from Hungary.

The month of January has generally been quite spring-like, instead of being the cold, frosty, seasonable winter month that was required to put life into the wheat trade, and the effect on prices has been that they have steadily fallen during the month. Factors are willing to make reductions if there is any chance of getting a buyer, but transactions are slow and difficult. The millers and wheat factors have had some good discussions of how to remove the serious impediment to the Indian wheat trade, which is now under consideration at the Indian office. Indian wheat usually arrives in England with from 3 to 7 per cent. of dust, dirt and other foreign matter mixed with it, and buyers in England have been under the impression that the admixture is unavoidable. The fact is, however, that the millers, buyers and corn trade associations in England are answerable for this adulteration. The standard on which sales are made and the grain shipped allows of 4 per cent. impurities, and the expense of railway carriage and sea freight is so heavy that shippers in India cannot afford to send a purer article. If the purchaser in England will insist on a higher standard—allowing, say only 2 per cent. of impurities—India will be ready to adopt it, as when the wheat is separated from impurities, a much higher price will be obtained for the grain on the English markets. Americans should be pleased at this reform, as it will certainly enable them to get a better price for their wheat and flour by removing a quantity of cheap grain from the English markets, which, when present, has a depressing effect on prices.

On Christmas eve, the salesmen at the various stands on Mark Lane Corn Exchange found the time hang so heavily on their hands, on account of the limited amount of business and scarcity of attendance, that they were tempted to find something to distract them from the rather melancholy pastime of comparing records of blank sales with one another. At any rate, towards the time of closing the market a foot-ball suddenly rose above the heads of the crowd that usually gathers in the center of the building, and before many seconds were over it was being propelled hither and thither by nimble feet, to which it was evidently no stranger. The worthy official who forms the tallest object on the market (with the exception of the clock tower), tried to put a stop to the game by impounding the foot-ball, but even his stalwart frame was unable to stem the torrent of athletic players who stopped his "rush," and for a little time the market was the scene of several little foot-ball scrimmages, in which the tall but good-humored representative of law and order invariably formed the central figure. At last, with some further

official assistance, the ball was impounded, and the unprecedented and not altogether edifying scene terminated.

FRANCE during the past five months has been importing double its usual quantity, and with stocks in granary increased, the markets keep inactive and discouraging. The election of General Boulanger in Paris, has not, so far, had any effect on the markets.

A meeting in connection with the great Royal Agricultural Society's Jubilee Show, which is to be held under the presidency of Queen Victoria in Windsor Park next June, took place at the Guild hall of the Royal borough on Saturday last. The mayor, who presided, reported that the subscription promised towards the expenses amount to £3,125, of which £2,850 had already been received. The exhibits of milling machinery will be greater this year than is usual at the Royal Agricultural shows. Speaking of flour mill machinery exhibits, it should be mentioned that Messrs. Thos. Robinson & Sons, Ltd., the well-known milling engineers of Rochdale, who are at the present time very busy erecting mills on their improved flour milling system in Australia, France and this country, intend to have at the great Paris exhibition a model flour mill. Mr. S. Howes, of Silver Creek, N. Y., and 64 Mark Lane, London, will also have at the Paris exhibition a large show of their Eureka wheat cleaning machinery.

A FLOUR RING has been started in that part of England between the Humber and the Tweed, although the capital required has not yet been subscribed, viz.: £1,500,000. A prospectus of the scheme, marked "private and confidential," has been issued. The name given to the company is the "North-Eastern Millers, limited," and its profits are estimated at 16 per cent. on the capital of £1,500,000. These figures are arrived at by estimating a profit of two shillings per sack on all flour handled. The millers, whose names are given as directors of this enterprise, are:

Mr. R. H. Appleton, Stockton-on-Tees, who was president of the National Association a few years since; Mr. Thomas French, Stockton; Mr. Henry Leatham, York; Mr. Henry Proctor, Newcastle-on-Tyne, and Mr. Robert Scafton, Middlesboro.

The above five gentlemen are selling their mills to the company, the understanding being, it is said, that each miller who sells his mill should take one-third of the price in shares. It will thus be seen that as these millers are both buyers and sellers, their own interests will, no doubt, be carefully looked after. A well-informed correspondent, writing from Newcastle to a London evening paper states that "The representation of a prospective profit of 2s. a sack, if based upon the past is a fraud—nothing less. Just look at it. A miller with an out-turn of one thousand sacks of flour a week—this is now considered as a very small mill—at 2s. a sack profit would make a net profit of £5,200 a year. A mill with an out-turn of 4,000 sacks a week, such as Appleton's

and Leatham's (two of the directors), at 2s. a sack profit, would mean £20,800 net profit in a year. Would any miller, big or little, part with his business to a syndicate if he was making such profits? If an average of the last five years is taken, I will guarantee, and I speak from intimate practical knowledge, their profits will not reach 1s. per sack, and I question if they can show any profit over that period at all. Taking the general average of the lot they will not show 6d. profit. During the last half of 1888, owing to the rapid advance in wheat, they would show a better return, but up to that period it was notorious that they were making no profits at all; and, indeed, the records of the Bankruptcy Court demonstrate that some at least experienced heavy losses. Sixteen per cent. profit upon their out-turn is therefore ridiculous on the face of it. Why are millers so anxious to get rid of their property?"

The reason is not far to seek when we consider the number of mills there are erected in the north of England on the roller system and the capacity of the mills as compared with the district they have to supply.

It should be also noted that the co-operative societies control at least 50 per cent. of the distribution of the flour. They have many mills which they work themselves, and are also erecting a large mill at Dunstan-on-Tyne, capable of producing 8,000 sacks of 280 lbs. each of flour per week when in full work. The Wholesale Co-operative Society has already been approached by the directors of the flour syndicate; but they have decided, much to the chagrin of the flouring promoters, not to sell any of their mills or take shares in the syndicate. On Saturday last a special meeting of the Wholesale Co-operative Society was held at Newcastle, to hear a paper read by Mr. D. R. Bailey, Hon. Sec. to the Northern Section on "The Great Flour Ring and Syndicate, and the position of these rings to the co-operative movement." Delegates were present from Gateshead, Chester de Street, Seaton, Delaval, Newbottle, Stockton, Hartlepool, Hilton Downs, New Delaval, Walker, Wallsend Carlisle, Consett, Newcastle, Berwick Main, Armfield Plain and Paisley. The paper condemned and denounced the Flour Syndicate in no measured terms. In the discussion that followed the societies decided that they would not only not countenance the syndicate, but whilst their mill is being constructed they will practically boycott the syndicate, by refusing as far as they possibly can, to buy flour from them. They will buy imported flour, or import their own, or arrange with outside millers. This they can easily do. W. R. Hamilton (of Chester-de-street), moved a resolution as follows: "That the formation of syndicates and rings by a few large capitalists for the monopoly of any given article of use or for consumption, is injurious to the community at large, pledging the conference to use every means to obtain for the co-operators of district, their supplies, through co-operation and wholesale organization, and requesting the committee of Co-operative Wholesale Society

to forward, with all practical speed, the erection of a corn mill at Dunstan-on-Tyne." This was seconded and carried unanimously. A good reason why the millers are pressing forward their prospectus, at the present time, is that they will get 50 to 100 per cent. more for their properties and good-will than they would fetch in the open market. It will pay them to have not only one-third of their valuations in trust, but one-half for a time. If a profit is shown on the first six or twelve months' working, which is possible, without American competition, they will, no doubt, take the opportunity to clear out. It is not believed, however, that any body of independent investors will be found to risk their money in the venture. Stimulated, no doubt, by the formation of the millers' syndicate, the operative millers employed in the various flour manufacturing establishments have set about the formation of a protective organization of their own. After two successful preliminary meetings, a largely attended general meeting was held at the end of last week at Stockton-on-Tees. It was resolved that the association be called the "National Operative Millers' Union." The object of this union amongst the operative millers is "defense, not defiance," which became necessary by the action of promoters of the "Flour Ring."

I must not conclude this letter without drawing the attention of American millers to the flour exportation from Fiume, which, in consequence of the abundant harvest in Hungary, attained last year the unprecedented figure of nearly 1,250,000 double centners as against 755,986 in 1887. The largest quantity, namely 873,200 double centners, was shipped to Great Britain, and showed an increase of 301,800 double centners in comparison with the previous year. The quantity sent to France also increased from 88,771 to 152,975 double centners, and the remainder was dispatched to Spain, Holland, Belgium, Portugal and Brazil.

L. MAYGROVE.

ATTRACTIVENESS, cleanliness and convenience, are important factors conducive to health and happiness in all shops and factories. It is only from the healthful, contented man, that we have a right to expect good work. No one can be happy or retain good health who is obliged to operate the ill-designed, back-breaking machinery in some of the filthy places I call to mind; but thanks to progress, such machines and shops are a long way in the minority, and let us hope the time is not far distant when they will disappear entirely.

If I had the ruling of affairs I would have the workshop as attractive as the flowers of June; as enticing as the fruits at the "Harvest Feast;" I would have the tools as convenient as the "Magician's Wand," and the "Cup of Knowledge" more fascinating and exhilarating than the wine-cup. Work should be a pastime—the workman's life like unto one long holiday.—T. P. Farmer in *The American Machinist*.

SPECIAL NOTICE.

We will furnish any one in the United States or Dominion of Canada, for one year, with THE UNITED STATES MILLER and *The Northwestern Miller*, for \$3.25; including "50 novels," \$3.75.

UNITED STATES MILLER.

E. HARRISON CAWKER, EDITOR.

PUBLISHED MONTHLY.

OFFICE, No. 124 GRAND AVENUE, MILWAUKEE.

SUBSCRIPTION PRICE—PER YEAR, IN ADVANCE.

To American subscribers, postage prepaid..... \$1.00
To Canadian subscribers, postage prepaid..... 1.25
Foreign subscriptions..... 1.50

All Drafts and Post-Office Money Orders must be made payable to E. Harrison Cawker.

Bills for advertising will be sent monthly, unless otherwise agreed upon.

For estimates for advertising, address the UNITED STATES MILLER.

[Entered at the Post Office at Milwaukee, Wis., as mail matter of the second-class.]

MILWAUKEE, FEBRUARY, 1889.

We respectfully request our readers when they write to persons or firms advertising in this paper, to mention that their advertisement was seen in the UNITED STATES MILLER. You will thereby oblige not only this paper, but the advertisers.

MILWAUKEE AMUSEMENTS.

ACADEMY OF MUSIC—First-class theatrical entertainments every evening. Matinees Wednesdays, Saturdays and Sundays, at 2 p. m.

STANDARD THEATER (South-side)—Every evening; matinees Saturdays and Sundays, at 2 p. m.

GRAND AVENUE THEATER AND MUSEUM—Open daily from 10 a. m. to 10 p. m.

STADT THEATER (German)—Wednesday and Sunday evenings.

PEOPLE'S THEATER—Choice variety performances every evening; matinees Tuesdays, Fridays and Sundays, at 2:30 p. m.

PUBLIC MUSEUM, Exposition Building—Open daily; admission free.

LAYTON ART GALLERY—Open daily. Free admission Tuesday, Thursday and Saturday.

UNDER date of Feb. 20, we are authorized to state that "The Spring Wheat Millers' Association of the United States" represent a daily capacity of 55,600 bbls.

If you are about to build write to the UNITED STATES MILLER for a copy of "Brean's House Plans," and enclose fifty cents in stamps. It will help you

THE Baker's Helper is the title of a neat journal published in Chicago by The Chapman & Smith Co. It is printed in both German and English. It is published monthly and the subscription price is \$1.00 per year.

BRO. REIFSNIDER, of The St. Louis Miller, is now reported to be the owner of a full-fledged flour mill at Eldorado Springs, Mo. That it may turn out good, broad bran, and a clean, clear product, and bring in lots of shekels, is the worst wish we have for "Eli."

HAVE you a wife, daughter or sweetheart? If so, send \$1.10 for a copy of The Ladies' Home Companion and THE UNITED STATES MILLER. Both papers for one year for \$1.10. The former is published twice a month, and is a beautiful 16-page paper. Address THE U. S. MILLER, Milwaukee, Wis.

THE Nebraska legislature is trying to pass a "bucket-shop bill"; The New York legislature are trying to pass a bill prohibiting dealing in grain futures; Nevada is trying to establish state lotteries, and Montana has legalized "faro" and "draw-poker." In the meantime the Supreme Court of New York has handed down a decision legalizing "bucket-shops." And still we are not all happy.

THE President has approved the act to enlarge the powers and duties of the Department of Agriculture, and to create an executive department to be known as the Department of Agriculture. This is evidently a wise act, and we hope to see great improvements in the management of the department hereafter.

IN the city of Yankton, a 40-horse-power turbine water-wheel operating a tow-mill by day and an electric light by night, is driven by the force of water

flowing from an artesian well, the cost of obtaining which was no greater than would have been the cost of a steam engine developing the same power, and counting the continual outlay necessary (had steam been employed) for fuel, repairs, and the salaries of engineer and fireman.

THE Baltimore Journal of Commerce of a recent date tells the following pretty little reminiscence:

To show how closely the loaf is allied to home and comfort, we will relate a story told by a lady of Asheville, N. C., soon after our civil war. She said: "We were—all that was left of us—seated around the tea-table one evening. The all was the little mother, the aged and feeble grand-parents, and the young who were unable to carry a musket. The tea was warm, but had never known China; the cattle had gone far a-field—to the commissary, there was no butter and little of anything else. A carefully wrapped package was laid on a napkin near the center of the table, and little mother came in, and unfolding disclosed a loaf of white bread, such as we had not seen for weary months. Hastily and nervously she divided it. The little ones clutched and ate their share quickly. We, the older ones, touched but could not taste nor swallow. There was a lump in the throat, you know," she said, sobbing.

WE will send the UNITED STATES MILLER and American Miller to any address in the United States or Canada for one year for \$1.50, or both papers and "50 novel" premiums for \$1.75.

ANOTHER PATENT WAR COMMENCED.

Millers all over the country will be interested in a suit to be tried in the United States court at Detroit, Mich., this month. The suit is brought by the Consolidated Roller Mill Company against W. A. Coombs, of Coldwater, Mich., for an alleged infringement of one of their numerous patents, and it promises to be as important as the famous Cochrane case, and of as general interest to millers, except that in this case all millers who were members of the National Association prior to March 9, 1887, are relieved by reason of an agreement between the Association and the Consolidated Company whereby the latter agreed to relieve the members from all infringements previous to that date. All millers using rolls furnished by the Consolidated Company are likewise exempt. The suit is brought ostensibly against the miller, but it is understood to be aimed at some of the twenty or thirty firms manufacturing various kinds of rollers. The Consolidated Company is composed of E. P. Allis & Co., of this city; Stilwell & Bierce Mfg. Co., of Dayton, Ohio; the Nordyke & Marmon Co., of Indianapolis and the J. T. Noye Mfg. Co. of Buffalo. It controls about eighty patents. As it has employed Rodney Mason, the noted patent lawyer, to prosecute its case, and has been two years in collecting its evidence, it is safe to say this is a test case of no small importance. The value of The Millers' National Association as a protection against patent litigation, will be duly appreciated by members.

THE C. I., St. L. & C. Ry. (Kankakee Line) is the best line to Cincinnati, Richmond, Va., Newport News, Washington, Baltimore, Chattanooga, Atlanta, Savannah, Charleston, Jacksonville, St. Augustine, Thomasville, Pensacola, Mobile, New Orleans, and all points in the South and South-east.

NEWS ITEMS OF ALL SORTS.

DEAD, John Engelke, a well known St. Louis miller.

CANADIAN millers are petitioning their Parliament for protection.

THE Chamber of Commerce at Duluth, Minn., was destroyed by fire Jan. 27.

BURNED—Feb. 8, Lewis Van Inwagen's elevator with contents, at Hastings, Minn.

J. B. KEHL's mill at Chippewa Falls, Wis., was badly damaged by fire Feb. 23. Insured in the Miller's Mutual.

BURNED, Feb. 13, Higgins & Murchison's elevator at Indianapolis, Ind., containing 40,000 bushels of corn.

THE Baltimore and Ohio R. R. will build an elevator of 1,000,000 bushels capacity at Philadelphia, this year.

THE farmer's elevator at Tobias, Neb., will soon be completed, and a 60-barrels steam-roller-mill is under way.

THE Kansas Elevator Company of Armourdale, Kas., will establish a flouring mill in connection with the elevator.

A \$400,000 fire occurred in Montreal, Feb. 16, in which about \$100,000 worth of No. 1 wheat, belonging to Goulds, the millers, was destroyed.

BELIOT, Wis., has secured the location of The Williams Steam Engine Works of Chicago. The city gave as a bonus ten acres of land and \$10,000 in cash.

It is reported that W. W. Cargill, of La Crosse Wis., will probably build a mill this year at Sault Ste. Marie, Mich. The work on the canal there is progressing rapidly.

FEB. 5, Brown's elevator, Lincoln, Neb., caught fire and burned to the ground. The elevator is a total loss, together with 30,000 bushels of grain. The loss will aggregate \$50,000.

THE Stilwell & Bierce Manufacturing Co., of Dayton, are at work on a power plant, including Victor turbines, for a new pulp and paper mill for Messrs. Kimberly, Clark & Co., of Neenah, Wis.

Two hundred members of The Philadelphia Produce Exchange made an excursion to Washington, D. C., Feb. 11, and called on President Cleveland. This excursion took the place of their annual banquet.

AT Fostoria, Mich., Feb. 14, fire was discovered in the elevator of Foster & Borsen. The building which contained 1,000 bushels of wheat and 2,000 bushels of oats burned to the ground. Loss \$6,000; insured for \$3,500.

A FLUME costing over \$1,000,000 has just been completed at San Diego, Cal. It will furnish that city and vicinity with water. The flume is 50 miles long and passes over 350 trestle bridges, and through eight tunnels.

BURNED—Feb. 16, Mrs. J. R. Cook's 150-barrels mill at Rochester, Minn. Loss \$15,000. No insurance. The mill has stood idle for a long time, and the fire was evidently the work of an incendiary. One man was badly injured by falling timbers.

KELLY & LYLE's mill, Leavenworth, Kas., the largest concern of its kind in Kansas, caught fire Feb. 25, and burned to the ground. The elevator, containing 200,000 bushels of wheat, was also destroyed. The loss will be over \$500,000. Spontaneous combustion was probably the cause.

AT Staunton, Ill., Feb. 9, the Staunton Elevator, the property of the Star Milling Company, was destroyed by fire. One thousand bushels of wheat and 400 bushels each of corn and oats were consumed. The loss is about \$5,000, on which there was \$2,100 insurance. It is thought the fire was of incendiary origin.

AT Kansas City, Mo., Feb. 7, an explosion of dust occurred on the fourth floor of the Corle & Sons' oatmeal mills, corner of Santa Fe and Eighth streets, and immediately fire broke out. The total loss on the building, machinery and stock is between \$15,000 and \$20,000, which is covered by insurance for more than twice the greater amount.

EDW. F. HECHT, cashier of Chas. Kaestner & Co., of 303 S. Canal st., Chicago, mill-furnishers, was attacked at mid-day by three thugs who endeavored to rob him of a satchel containing a considerable sum of money which he was bringing from the bank to pay off workmen with. Although badly bruised in the tussle, we are glad to learn that he was not seriously hurt.

THE firm of Poole & Hunt, machinists at Baltimore, Md., has been dissolved by the retirement of German H. Hunt. The senior member of the firm, Robert Poole, has associated with him his son George Poole. The firm of Poole & Hunt had been in existence for 38 years. The number of employees is about 300. Mr. Hunt will take a rest for at least a year, during which time he will make a tour of Europe. After this he will engage in a new enterprise.

SAYS a Canadian exchange: "A new flour mill is to be built during the coming summer at Port Arthur by Messrs. Hastings & McGaw which will be among the best and most modern mills in Canada, if not the largest; it will be of brick and stone; of 500 barrels daily capacity; six stories high; an elevator of 40,000 bushels in connection; cost about \$75,000. They are to get a bonus of \$15,000 and exemption from taxation, and agree to have the mill in running order by Oct. 15th.

OUR readers will confer a favor by writing to us giving us any item of news such as new mills, elevators, etc., or improvements in the same, or giving information of a practical nature of general interest to the trade.

MILWAUKEE ITEMS.

MR. FERDINAND SCHLEISENIGER, well known to a good many millers and mill-furnishers, from his connection with the Cockle Separator Manufacturing Co., the Milwaukee Dust Collector Co., etc., has of late years become a prominent character in mining circles. He has recently aided in organizing a syndicate for the purchase of the Chapin iron mine, the largest in the world, for the sum of \$2,000,000. Recently he paid \$900,000 into the Plankinton Bank as the first payment. Mr. Schleisenger will be President of the new company. He also owns an interest in the

York mine, said to be worth a cool million. We congratulate Mr. Schleisenger on his good fortune.

THE first electric traveling crane ever built in the United States has just been introduced in the foundry of E. P. Allis & Co. It is a ponderous affair weighing 30 tons, and capable of lifting and carrying to any part of the foundry with ease, a weight of 25 tons. The crane is a bridge-like affair, suspended on tracks on each side of the foundry, near the ceiling. It is provided with three electric motors. One moves the crane, another moves the carriage with which the crane is provided from one side of the foundry to the other, and the other runs the lifting machinery. Its advantage over the ordinary power traveling crane, which it resembles somewhat, is a saving of the power and wear and tear of machinery. The only other electric crane known is in an English foundry, the latter being supplied with only one motor, rendering clutches and complicated gearing necessary.

THE U. S. MILLER for one year and 50 novels for One Dollar.
Don't forget to order at once.

ANALYSIS OF WHEAT.

In reading the tables of analyses quoted by different writers, it will be noticed that they do not by any means agree as to the constituent parts of certain wheats. It appears to be useless to expect any very great uniformity in these statements. The reason may be that no two analysts treat precisely similar wheats (and it is a nice point of practical milling knowledge that no two parcels of the same class wheats work exactly alike), consequently such diversity as we find may be explained by variations of soil, climate, or temperature, rather than by assuming that some, at least of the scientists, have given inaccurate figures.

The physical structure of a wheat grain is said by Mege-Mouries to consist of the following parts:

1. The outer skin or epidermis	equal to.....	0.5 of grain
2. The 2d skin or epicarp equal to 1.0"		
3. The 3d skin or endocarp.....	" 1.5 "	} Offals.
4. The 4th skin or testa.....	" 2.0 "	
5. The embryo or germ.....	" 2.0 "	
6. The embryo membrane.....	" 3.0 "	
7. The endosperm.....	" 90.0 "	
		100.0

THE C. I., St. L. & C. Ry. (Kankakee line) is the best route to Florida. Close connections in Central Union Depot, Cincinnati with through express trains of C. N. O. & T. P. Ry. Queen & Crescent Rout

WE shall be pleased to receive from any of our readers, short, crisp, sensible letters on subjects of interest to the flour and grain trade for publication.

DO YOU INTEND TO BUILD? PRACTICAL LOW-COST HOUSES. HOW TO BUILD THEM.



A Large Atlas, containing drawings and floor plans of 40 Modern Houses with Correct Estimates of cost of building. All kinds of buildings ranging from a \$400 cottage to a \$10,000 residence. The latest, most complete, and only practical book published. It is false economy to attempt to build without these plans. Price by mail, post-paid, 50 cts. Stamps taken.

Address, UNITED STATES MILLER, Milwaukee, Wis.

EVERYBODY'S PAINT BOOK



Address, UNITED STATES MILLER, Milwaukee, Wis.

THE PRATT INSTITUTE, BROOKLYN, N. Y.

In the "good old days of our fathers" the boy or young man desiring to learn a trade, was obliged generally to become apprentice to some master and serve several years before he was considered competent to enter upon his duties as a journeyman. During this period of apprenticeship he was expected to do the necessary sweeping and cleaning up around the shop, run errands, do chores about the master's house, etc.

Within the last generation there has arisen a demand for institutions combining teaching with practice, in which trades could be well and quickly learned. There are now a number of these establishments in different parts of this country, and judging from the extent that they are patronized, they indeed fill along-felt want.

We take pleasure in calling to the notice of our readers the Pratt Institute of Brooklyn, N. Y., and the illustrations herewith given will give a very good idea of the value of such a place of instruction for the public welfare.

The Institute owes its existence to the philanthropic nature and personal efforts of Mr. Charles Pratt, who, in his youth was compelled to obtain his knowledge of practical mechanics in the old-fashioned way. He determined, while enduring the hardships of a poor apprentice, that if he should succeed in life he would make the road to practical knowledge easier to at least a portion of mankind whose youth succeeded his. How well he has accomplished his design the reader can readily imagine.

The buildings of the Pratt Institute in Brooklyn contain from three to four acres of floor space and are from six to eight stories in height. They occupy a plot of ground 350 x 200 and across the street there is another plot of ground 250 x 200 feet, which at present is used for a playground for boys. Both male and female students receive instruction. The buildings are built tastily and substantially and are supplied with all the modern appliances for heating, lighting, ventilation, prevention of fire, etc.

Work on the building was commenced in July, 1885, and a charter was granted in May 1887, with power to confer degrees. The Institute has a free library containing several thousand volumes; a free reading room supplied with a great number of American and foreign periodicals and reference books, and a technical museum containing specimens of manufactured articles and the crude materials from which they are made, so arranged as to show the various processes through which they pass from the raw material to the finished product.

We have not the space here to enter minutely into the minute description. Our object is to call attention to it, and those who desire further information can do so by writing to the Secretary of the Pratt Institute, Brooklyn, N. Y. It is worthy of the careful investigation of all who have the desire and means to avail themselves of its benefits.

THE WINTER-WHEAT MILLERS' CONVENTION.

On the fifth of February about two hundred representative millers from various winter-wheat states assembled in convention in the hall of the Board of Trade at Indianapolis, Ind. The object of the convention was to establish an organization which would be able to regulate the trade so as to make it a reasonably prosperous one. The millers present fully recognized the fact that without some such organization the trade, if not already so, would soon

On the evening of February 5th a magnificent banquet was given to the visitors by the mill furnishers and manufacturers, millers, transportation companies and business men of Indianapolis. The banquet was thoroughly enjoyed while listening to the sweet strains of music from a fine band. A colored quartette also charmed those present with several happy songs. The inner man being satisfied the toast, master D. H. Ranck, Esq., the accomplished editor of *The Millstone* proceeded to read a number of good toasts, all of

THE GRAND HOTEL stands high in the estimation of all visitors.

MANY millers were much disappointed in not being able to find time to take the trip around on the Belt Line, and visit The Nurdyke & Marmon Mfg. Co.'s works and other establishments. Those who could stay were well repaid for their time and trouble.

M. H. ESCOTT, formerly of Milwaukee, but now with the J. B. Alfree Co., of Indianapolis, we are glad to say is again in good health and seemed to enjoy himself well in making things pleasant for visitors.

Among the visiting orators present at the banquet were Smith, Ballard, McCann, Seybt, and—well—come to think of it, the majority present were all orators.

FOREIGN ITEMS.

THE United Kingdom's wheat crop in 1888 was 74,493,133 bus., against 76,224,940 bus. in 1887, 63,347,885 bus. in 1886, 79,635,269 bus. in 1885, and 82,069,964 bus. in 1884.

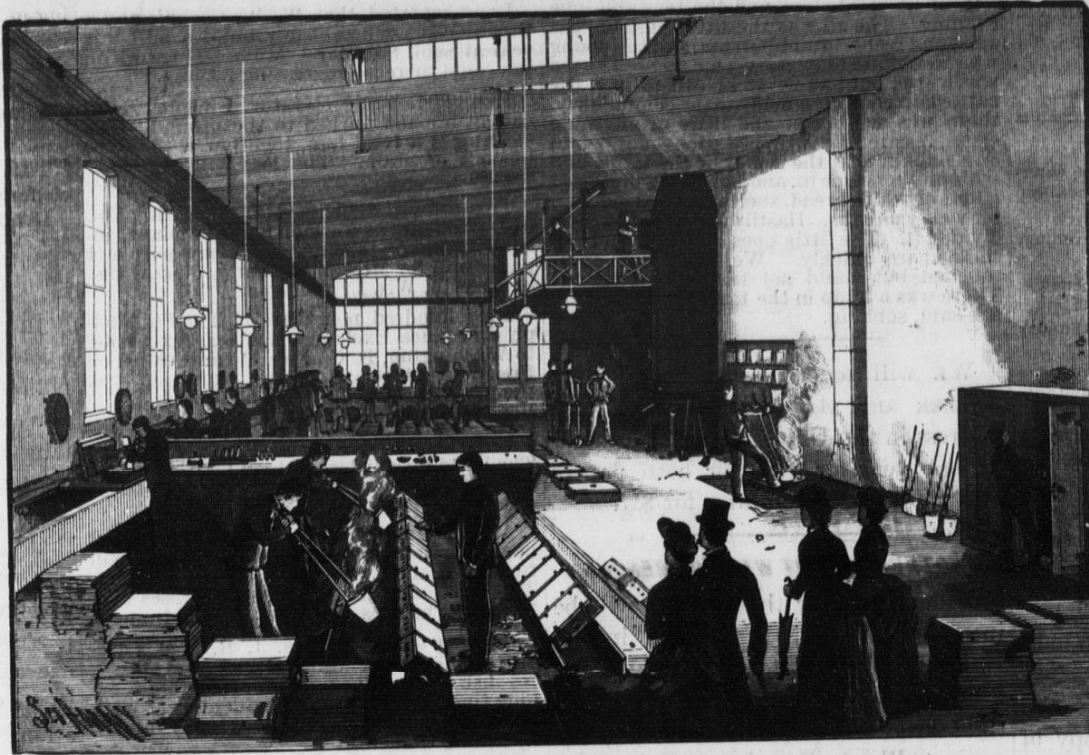
"THE value of the American maize crop," observes the *London Mark Lane Express*, "is something astonishing. To the two crops of 1887 and 1888 an aggregate monetary value of £208,000,000 is assigned. With this wonderful increase of agricultural wealth it is no longer surprising that the United States are paying off their national debt at the rate of £30,000,000 a year, or that a high mean standard of prosperity continues to be supported, notwithstanding protective tariffs which would drive Englishmen to the verge of revolt."

Just think of it! Of every eight loaves of bread which the Londoner eats seven are made of foreign wheat—two being Russian—and only one of home-grown grain. During last year London received a total of 2,745,891 qrs. of wheat, and of flour a further quantity (reckoned as quarters) of 2,356,883 qrs., or a grand total of 5,102,774 qrs. Of this vast quantity, the largest since 1883, but 660,000 were native, the whole of the remainder coming to us from abroad. The most noteworthy feature of the London trade is the extraordinary large imports of Russian wheat, and as striking a decrease in the imports from the United States.—*Mark Lane Express*.

RUSSIA'S grain shipments in 1888 having been the largest on record, it is somewhat surprising to learn that Russian official opinion, as embodied in the report of a recent Agricultural Commission, is of a very pessimistic character concerning the future of the vast corn-growing lands of the Empire. The big yield of 1888 following the good crop of 1887, an event which must be regarded as very exceptional, while the decrease in the average fertility of the soil on the returns of every ten years appears to be continuous. The destruction of forests and the embarrassed state of the farmers, whose crops as well as holdings are mortgaged at a higher rate of interest than agricultural profits allow, are two other causes of what appears to be well-grounded alarm.—*Mark Lane Express*, (London).

THE SAULT STE. MARIE VS. THE SUEZ CANAL.—The last month of any considerable traffic through the Sault Ste.

Marie Canal showed a gain of 105,000 tons over November, 1887, and brought the total freight tonnage for the season to December 1st up to 6,409,278 tons. This, a Cleveland paper remarks, is doubtless the greatest volume of business which has ever passed through any ship canal in an equal period. It is about the usual tonnage of the Suez canal for an entire year, showing a monthly traffic twice as great as that of the famous highway opened through the Egyptian sands by Count de Lesseps. The growth of the commerce of the great lakes is wonderful, even in this land of industrial marvels.



THE FOUNDRY.

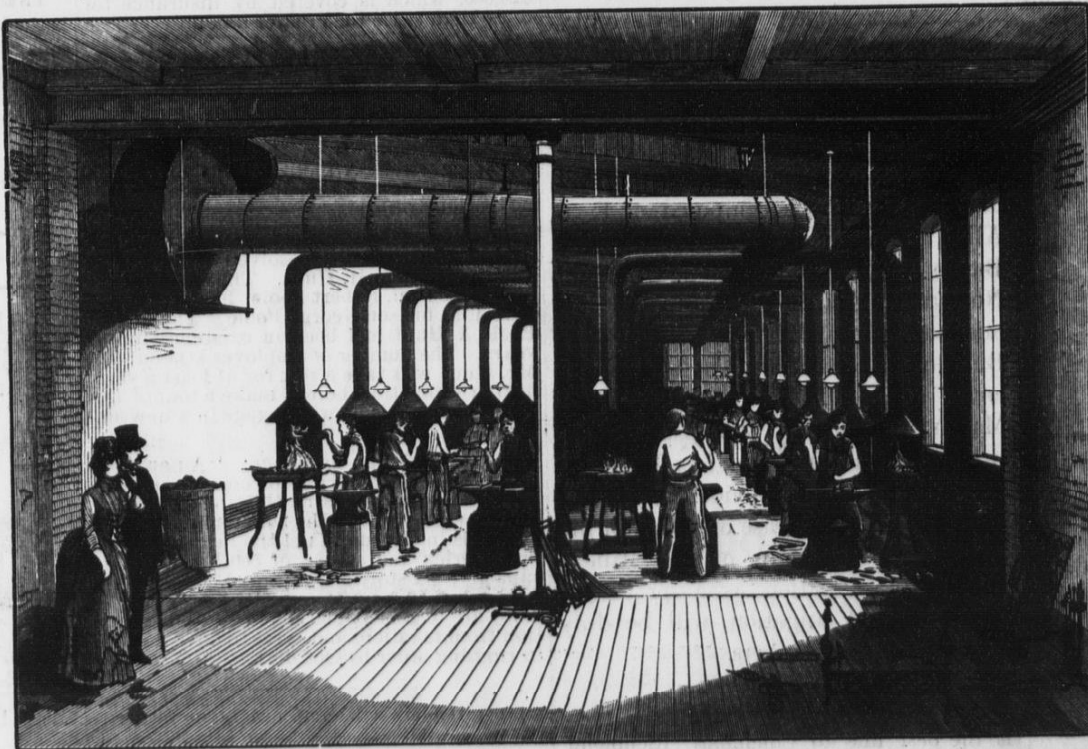
become thoroughly demoralized, and therefore ruinous to thousands engaged in the business.

Dr. E. T. Noel of Nashville, Tenn., was elected president of the convention, and D. H. Ranck of Indianapolis, secretary. After an address setting forth the object of the meeting by the president, the gentlemen present proceeded to business in a straight, forward manner, the result of which was the establishment of an organization to be called

which were happily responded to by the gentlemen present. As the clock struck the hour of one, the guests arose and proceeded to their respective lodgings, satisfied that they had spent one of the happiest evenings of their lives.

CONVENTION NOTES.

GEO. BAIN, of the St. Louis delegation and a number of others called on President-elect Harrison. By the way, it seems quite propable that George will be appointed U. S. Consul at Glasgow.



THE SMITHS' SHOP.

"The Central Millers' Association, with a board of directors consisting of one miller from each state represented in the association. At the present writing (Feb. 20) we are informed that the capacity of mills in the association is about 66,000 barrels per day, to which additions are made daily.

Winter-wheat millers desiring to obtain a full and complete report of the proceedings, can obtain the same by address Alex. Smith, Esq., secretary Central Millers' Association, 212 Chamber of Commerce, St. Louis, Mo.

THE milling press was represented as follows: *The Millstone*, by D. H. Ranck; *The Merchant, Miller and Manufacturer*, by J. L. Rickart; *The Northwestern Miller*, by A. Litchfield; *The American Miller*, by H. B. Mitchell; *The Roller Mill*, by E. L. Burdick and *The United States Miller*, by E. H. Cawker.

WM. TRUDGEON, representing the Richmond Mfg. Co. of Lockport, N. Y., the only man on earth that can call every miller in six winter-wheat states by name on sight, was omnipresent.

BRO. RANCK, of *The Millstone*, did his level best to make things pleasant for everybody and succeeded.

AN AUTHENTIC BUYER'S GUIDE.

**MILL AND ELEVATOR BUILDERS,
MILL FURNISHERS, MANUFACTURERS
OF AND DEALERS IN
MILL AND ELEVATOR MACHINERY
AND SUPPLIES.**

Cards will be inserted under this heading in the "U. S. Miller," not exceeding three lines, copy of paper included, for FIVE DOLLARS per year, cash with order. Additional lines, \$1.00 each, per year.

Edw. P. Allis & Co., Milwaukee, Wis., builders of complete Flour Mills, manufacturers of Flour Mill Machinery, and dealers in Supplies of every description. [Mr. 89.]

Garden City Mill Furnishing Co., Chicago, Ill., Mill Builders, manufacturers full line of Flour Mill Machinery, dealers in Mill Supplies, Bolting Cloth etc., etc. [Mr. 89.]

Borden, Selleck & Co., 48 & 50 Lake st., Chicago, Ill., manufacturers of "HARRISON CONVEYOR" for Grain, Malt, etc., etc. [Mr. 89.]

John C. Higgins & Son, 165 West Kinzie Street, Chicago, Ill., mfrs. of and dressers of Mill Picks. [Mr. 89.]

H. P. Yale & Co., Milwaukee, Wis., Manufacturers' Agents of Engines and Boilers, New York Leather Belting Co.'s Leather Belting, Dodge Wood Pulley. [Mr. 89.]

Poole & Hunt, Baltimore, Md., manufacturers of Steam Engines, Water Wheels, Flour, Corn, Paper, Saw and Cotton Mill Machinery.

W. J. Clark & Co., Salem, O., manufacturers of "SALEM" Elevator Buckets, etc. [Mr. 89.]

Thornburgh & Glessner, 18-22 N. Clinton St., Chicago, Ill., manufacturers of Mill and Elevator Supplies.

R. C. McCulley, (P. O. Box 214) Lancaster, Pa., manufactures Cob Crushers, Cooper's Stoves, Castings, Patterns, etc. [Mr. 89.]

G. H. & J. Sanford, Phoenix Iron Works, Sheboygan, Falls, Wis., manufacturers of the "IMPROVED WALSH DOUBLE TURBINE WATER WHEEL." [Mr. 89.]

John C. Kilner, York Foundry and Engine Works, York, Neb., Mill and Elevator machinery of all kinds, Engines, rollers, Pulleys, Shafting, etc. [Mr. 89.]

The Gutta Percha and Rubber Mfg. Co., 159-161 Lake st., Chicago Ill., Belting and Rubber Goods. [Mr. 89.]

The Avery Elevator Bucket Co., sole owners and manufacturers of Seamless Steel Elevator Buckets, Wagon, Lake and Dart st., Cleveland, O. [Mr. 89.]

Richmond Mfg. Co., Lockport, N. Y., manufacturers of Grain Cleaning Machinery, Bran Dusters etc. [Mr. 89.]

N. Y. Belting and Packing Co., N. Y. Leather Belting Co., Goulds & Austin, Agents, 187 and 189 Lake Street, Chicago. [Apr. 89.]

Weller Bros., 94 Wendell st., Chicago, Mfrs Mill and Elevator specialties, Cups, Boots, Spouts, Steel Conveyors, Power Grain Shovels; dealers in Cotton and Rubber Belting, etc. [Apr. 89.]

The Nordyke & Marmon Co., Indianapolis, Ind., Flour Mill and Mill Machinery builders, and dealers in Mill Supplies of all kinds. [May 89.]

The Shields & Brown Co., 240 and 242 Randolph st., Chicago, and 143 Worth st., New York Mfrs. of Sectional Insulated Air Coverings for steam, gas, and water pipe, etc. [May 89.]

W. G. Avery Mfg Co., 10 Vincent st., Cleveland, O., Specialties: Avery Lever Belt Punches, Avery Seamless Elevator Buckets, Belting, Elevator Bolts, &c. [May 89.]

The H. J. Deal Specialty Co., Bucyrus, Ohio, Headquarters for Flour and Grain Testing Appliances, and Specialties for the Milling, Flour and Grain trades.

**EXPORT AND MERCHANT MILLERS
AND MANUFACTURERS OF
WHEAT, RYE AND BUCKWHEAT
FLOURS, AND CORN MEAL AND
CORN PRODUCTS (WITH NAMES
OF SPECIAL "BRANDS" MADE)
DESIRING CORRESPONDENCE WITH
SOLID HOUSES WITH A VIEW TO
TRADE.**

Cards will be inserted under this heading in the UNITED STATES MILLER, not exceeding three lines, paper included, for FIVE DOLLARS per year. Additional lines, \$1.00 each per year.

J. B. A. Kern & Son, "Eagle Mills," Milwaukee, Wis., WHEAT FLOUR BRANDS—Patents: "Success," "Kern's," Bakers: "Triumph," "High Ground," "Eagle," RYE FLOUR BRANDS—"A Rye," "1 Rye," "Rye." [Apr. 89.]

E. Sanderson & Co., "Phoenix Mills, Milwaukee, Wis., U. S. A. Manufacturers and Exporters of choice spring wheat flours. Daily capacity 1500 barrels. [Apr. 89.]

Bernhard Stern, "Jupiter Mills," Milwaukee, Wis., Roller Mill, Hard wheat Patents. Principal brand, "Jupiter." [Apr. 89.]

Faist, Kraus & Co., "Duluth Roller Mill," Milwaukee, Wis., Manufacturers and Exporters of choice spring wheat flours. Daily capacity 1500 barrels. [May 89.]

Russell, Andrews & Birkett Penn Yan, N. Y., Manufacturers of roller process Rye and Buckwheat flour. Absolute purity guaranteed. Write for prices. [Apr. 89.]

**Prominent Flour, Grain and Provision Brokers,
desiring correspondence with Millers
of Wheat, Rye and Buckwheat Flours, and
Cornmeal and Corn Products, with a view
to Trade.**

Cards will be inserted under this heading in the "U. S. Miller," not exceeding three lines, copy of paper included, for FIVE DOLLARS per year. Additional lines, \$1.00 each per year.

W. K. Sherwood, Flour and Grain Commission, 18 South Commercial Street, St. Louis, Mo. [Apr. 89.]

L. R. Hurd, Shippers of Minnesota and Dakota Spring Wheat, Minneapolis, Minn., Possessing a thorough and practical knowledge of the Economical and Flour Producing Qualities of all wheats grown in the northwest. I am enabled to make purchases with special reference to these qualities.

THE publisher of the UNITED STATES MILLER is desirous of having the names and addresses of Head Millers, Millwrights and Head Engineers in all mills having a capacity of 150 bbls. per day or more.

SECTION OF CONVEYOR.



**ROLLER and DETACHABLE
CHAIN
BELTING**

DETACHABLE in every Link.
Especially Designed for
**Elevators,
Conveyors,
Drive Belts,
Etc., Etc.**

— For Handling —
GRAIN, SEEDS, EAR CORN,
MALT, COTTON SEED, COAL,
STONE, CLAY, PAPER-PULP,
TAN-BARK, BOXES, BAR-
RELS, ETC.

Also manufacturers of the Gregory Grain, Seed and Fruit Dryer; Meal and Flour Purifier.

Before Placing Orders

Send for Illustrated Catalogue and Prices.

THE JEFFREY MFG. CO.,

169 E. 1st Ave., COLUMBUS, O.

[Jan. 89.]

1889 **New Business** 1889

Cyclopædia OF THE

**MANUFACTURES
AND PRODUCTS
OF THE UNITED STATES**

FOR DOMESTIC and FOREIGN TRADE

Our National Staples and Specialties

Showing where ANY ARTICLE OF AMERICAN MANUFACTURE can be purchased DIRECT.

A COMPLETE REFERENCE BOOK

for Manufacturers, Wholesalers, Jobbers, Retailers, Commission, Export and Import Merchants, etc.

—PRICE, \$5.00—

A Complete Cyclopædia FOR BUYERS and SELLERS in all Trades. Bound in Cloth.

In Leather, \$7.00.

PUBLISHED BY

THE SEEGER & GUERNSEY CO.

7 Bowling Green, New York, U. S. A.

TRADE LISTS FURNISHED.

CORRESPONDENCE SOLICITED.

AGENTS WANTED EVERYWHERE.

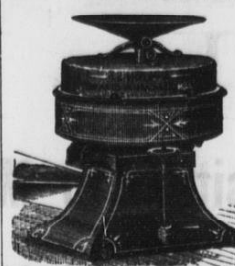
Manufacturers will please forward to us two copies of their latest catalogue.

GANZ & CO.

Budapest, Austria-Hungary.

We are the first introducers of the Chilled Iron Rollers for milling purposes, and hold Letters Patent for the United States of America. For full particulars address as above.

[Mention this paper when you write to us.]



Do you wish to purchase the Best
FRENCH BURR
Vertical or Horizontal
Feed Mills

OR
Cob Crushers.

Write to
C. G. PHILLIPS,
20 South Broad Street
Philadelphia, Pa.

Improved + Walsh + Double + Turbine



This wheel has a perfect fitting cylinder gate and draft tube combined, and allows no water to escape when closed.

POWER GUARANTEED

equal to any wheel on the market using equal amount of water. Address for particulars,

B. H. & J. SANFORD,

Phoenix Iron Works,
Sheboygan Falls, Wis.

ENLARGED.

Rand, McNally & Co.'s

Business

Atlas

1889.

NOW IN PRESS.

NEW SIZE OF PAGE, 15 x 21 INCHES.

It will contain new large scale double page maps of all important states (no cut-up maps).

The entire arrangement will be new, embodying the most improved methods of indexing and reference, clearly showing the location, population and commercial advantages of over 200,000 towns in the United States, Canada and Mexico.

Descriptive circular, printed on one of the maps, worth 35 cents, sent free on application.

RAND, McNALLY & CO.

148 Monroe Street, Chicago.

York St. 323 Broadway.

Situation Wanted.

A practical Stone Miller of thirty years experience, with good business qualifications and industrious habits, wants charge of a good Stone Mill by the month, or will run a mill on shares. Address, H. R. GARLICK, Menomonie, Wis.

Machinery For Sale

ONE PAIR 4-FT. MILLSTONES; new.

SEVEN PAIR 4-FT. MILLSTONES; used about three months.

ONE PAIR 9x18 CHILLED ROLLS; smooth.

ONE No. 1 THROOP SMUTTER AND SCOURER.

ONE 24-INCH MIDDINGS MILL.

ONE 1000-LB. PALMER POWER SPRING HAMMER.

ADDRESS

The Filer-Stowell Co.

CREAM CITY IRON WORKS,

Milwaukee, Wisconsin.

"TRIUMPH" CORN SHELLER

CAPACITY

2000 BUSHELS PER DAY.

Shells wet or dry corn.

CHEAPEST AND BEST SHELLER.

PAIGE MANUF'G CO.,

No. 12 Fourth St., Painesville, O.

[Please mention this paper when you write to us.]

*Better THAN THE Best
College*

IS **Charles Mayer's
Commercial College.**

Grand Avenue (Public Library Building),
Milwaukee. Established 1876.

1876, 27 pupils; 1887, 328 pupils. Telephone 1575.
Day and Evening Sessions.

Students of either sex received at any time for full course or any special branch of study.

DEPARTMENTS: Commercial, Preparatory, Shorthand (Graham's analytical system) and Typewriting (all styles of machines), Languages, Plain, Ornamental and Round Writing.

Best, Largest, Most Beautifully Equipped School of its kind. Eight teachers. Perfect Order. Liberal terms.

Address, or call, College.

Scholars from the country 20 Per-Cent. Discount allowed. Board procured. Further information, address College.

[Oct 5m.]

IMPROVED CORN SHELLER,

IT IS THE

BEST CORN SHELLER

MADE FOR MILL USE.

IT IS

Simple in Construction

Almost Noiseless,

—AND—

Requires Little Power

HUNDREDS ARE IN USE.

For descriptive circular, price list, etc., Address

JACOB VALENTINE,

Gorham, Ontario Co., N. Y.

JACOB VALENTINE,

Gorham, Ontario Co., N. Y.

The True Short System of Milling.

A NEW BOOK JUST ISSUED BY R. JAMES ABERNATHY.

PRICE: \$2.00 PER COPY, POST-PAID.

ONE COPY AND THE U. S. MILLER, \$2.25.

Address, **UNITED STATES MILLER,**

MILWAUKEE, WIS.

STILL ON TOP.



Perhaps the highest compliment that could be paid the "SALEM" Bucket, is the fact that, during the past few years, its shape has been so closely imitated by other manufacturers, as to infringe our patented rights; but experience reveals the imperfections of imitations, and, we therefore, take it as a further compliment to the "SALEM" Bucket, that some of its old patrons who were induced to try the imitations, have now returned to the Salem Bucket, thereby acknowledging it to be the most satisfactory. Don't be deceived by other makes of Buckets that are claimed to be "just as good." Insist upon having the ORIGINAL AND RELIABLE

"SALEM" BUCKET.

All legitimate "Salem" Buckets are plainly marked with the word "SALEM."

W. J. CLARK & CO., Sole Manufacturers, - SALEM, OHIO.

THORNBURGH & GLESSNER, Gen'l Agents, CHICAGO.

SPECIAL STAMPERS OF SHEET METALS.

We do Stamping and Pressing of Sheet Metals for All Classes of Work.

—ALSO SOLE MANUFACTURERS OF—

SEAMLESS STEEL BUCKETS

INSIST on having this Bucket furnished when ordering.

Ask your dealer for the Avery Pat. Seamless Steel Elev. Bucket.



We do not advertise Seamless Elevator Buckets and fill orders with "Pleced Ones"

We will make Special Prices rather than move stock to our new factory. Send for discounts.

THE AVERY STAMPING CO.,

—SUCCESSORS TO—

AVERY ELEVATOR BUCKET CO., CLEVELAND, OHIO, U. S. A.

THE DUNLAP BOLT

"A Great Acquisition to Milling."**HUNGARIAN ROLLER MILL CO.,**

BLOOMINGTON, ILLS., September 14th, 1888.

THE BRADFORD MILL CO., Cincinnati, Ohio.

GENTLEMEN: I have had your DUNLAP REEL in operation about 15 days and nights, and on new wheat which was very soft, and it has accomplished its work admirably; greatly exceeded my expectations. I have operated quite a variety of Reels, but have to say the DUNLAP surpasses any I have ever seen or used.

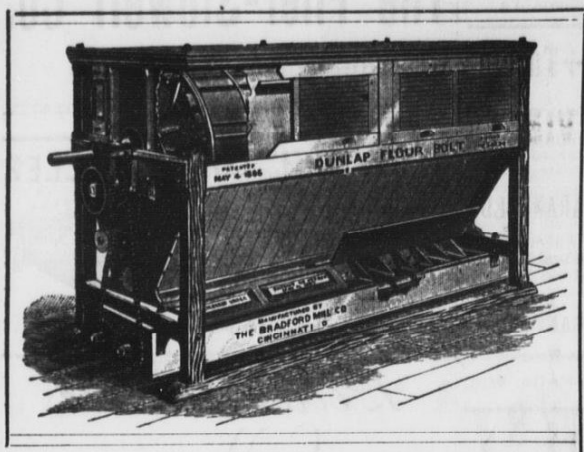
It gives me pleasure to state that its work has given entire satisfaction, and moreover, am surprised at its close separation, capacity and light running. The Dunlap Reel can certainly be considered a great acquisition to milling.

I to-day forward you, per mail, samples of material upon which your Reel is working.

Yours truly,

A. G. BEOBOLD,

Head Miller Hungarian Roller Mill Co.



The New 1500-Barrel Mill on Staten Island, N. Y., will have 52 of these Reels to do all its Bolting.

THE BRADFORD MILL CO.

CINCINNATI, OHIO.

The Gardner Flour Feeder and Mixer.

THE ECONOMIST AND MILLER'S FRIEND.

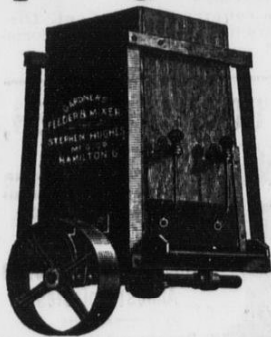
THOUSANDS NOW IN USE.

Saves the Labor of one man. Can be quickly adjusted to feed from ten pounds to five barrels per hour. Requires no attention, and will feed any amount at which it is set, with the regularity of clock-work. It is easily set up, and requires speed of only 20 to 30 revolutions.

The Cheapest and Most Perfect Machine ever offered to the Milling Public.

Write for Circulars to

The STEPHEN HUGHES MFG. CO., Hamilton, O.



Opposite the Plankinton House,

—MANUFACTURER OF—

FINE JEWELRY

A VERY LARGE STOCK OF

Diamonds, Fine Watches, Jewelry, Silverware,

Opera Glasses, Gold Spectacles, Canes, Umbrellas, etc.

Goods warranted as represented. Prices reasonable

PROPOSALS FOR FLOUR MILL MACHINERY.

U. S. Indian Service. Green Bay Agency, Wisconsin, Dec. 27, 1888.

Sealed proposals, indorsed "Proposals for Flour Mill Machinery" and addressed to the undersigned at Keshena, Wisconsin, will be received at this office until 1 o'clock, of Friday, Feb. 15, 1889, for furnishing and delivering at Shawano, Wis., machinery for a flour mill of a capacity of 25 to 40 barrels per day; also one 56 inch turbine water wheel. The mill is to be run by water power, and the machinery required should consist of the following, viz: One four break roller mill with elevators and scalpers complete; two double roller mills; four scalping reels and chests complete; two flour-dressing round reels; one centrifugal; one bran duster; one wheat separator; one milling separator; one scourer and polisher, and a four-foot rolling screen for finishing wheat, together with all necessary pulleys, elevators, belting, shafting, coupling, hangers, gearing and necessary iron work to place the machinery in running order.

CERTIFIED CHECKS.

Each bid must be accompanied by a certified check or draft on some U. S. depository for at least 5 per cent. of the amount of the proposal, which check or draft shall be forfeited to the United States, in case any bidder receiving an award shall fail to promptly execute a contract with good and sufficient sureties; otherwise to be returned to the bidder.

The right is reserved to reject any or all bids, or any part of any bid, if deemed for the best interests of the service. THOS. JENNINGS,

U. S. Indian Agent, Keshena, Shawano Co., Wis.

PRIVATE • TELEGRAPHIC • CIPHER CODE

Compiled Expressly for the use of

Millers, Flour & Grain Brokers'

For Private Telegraphic Correspondence, either for Land or Cable Lines.

1888 Edition, just out, March 1, 1888, revised, amended and added to, to meet all the requirements suggested by the members of the Miller's National Association, who use more copies of the Code than all others combined.

Published by the Riverside Printing Co., Milwaukee, Wis.

For terms, etc., address, stating number of Codes probably wanted.

E. HARRISON CAWKER, Milwaukee, Wis.

CAWKER'S AMERICAN FLOUR MILL AND GRAIN ELEVATOR DIRECTORY

Published once in two years.

Gives nearly 28,000 Addresses, P. O., County and State, Capacity, Power, System, etc.; also lists of Millwrights, Miscellaneous Mills, Millbuilders and Furnishers, Flour and Grain Dealers, Foreign Flour and Grain Importers, etc., etc.

1888-9 Edition, Issued March, 1888.

PRICE, \$1.00 PER COPY, post paid and registered to any part of the world. Address,

E. HARRISON CAWKER, Milwaukee, Wis.

J. B. A. KERN & SON, Merchant Millers,

Capacity 2,000 Barrels Per Day.

MILWAUKEE, WIS.

Manufacturers of Choice Minnesota and Dakota Hard Wheat Flour.

RYE FLOUR

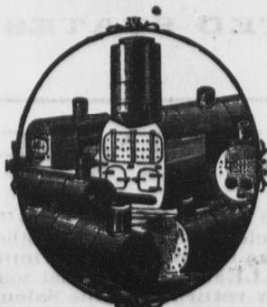
By most approved roller process, guaranteed the best and purest rye flour manufactured.

WE INVITE CORRESPONDENCE FROM CASH BUYERS.

MARINE BOILER WORKS, RICHARD DAVIS,

Manufacturer of High and Low Pressure

STEAM BOILERS



LARD OIL TANKS

Sheet Iron Work

IN GENERAL.

Oregon St., bet. Barclay and South Water Sts.,

MILWAUKEE.

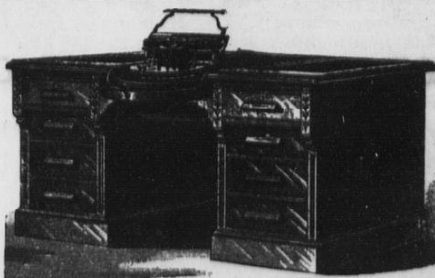
Particular Attention Paid to Repairs. Orders Solicited and Promptly Executed.

ENGINE FOR SALE.**One 600 Horse Power Corliss Upright Compound Engine**

Diameter of high pressure cylinder 28 inches, 38 inch stroke. Diameter of low pressure cylinder 56 inches, 38 inch stroke. Length of crank shaft 11 feet. Diameter of journals, 15 inches. Diameter of fly wheel, 24 feet. Weight of fly wheel, 48,000 pounds. Boiler feed pump. Engine complete, in good working order; can make from 1,000 to 1,200 bbls. of flour in 24 hours; has made a barrel of flour with 20 pounds of coal. For particulars apply to

JOHN B. A. KERN & SON,**EAGLE FLOURING MILLS,****MILWAUKEE, WIS.**

HAMMOND TYPE-WRITER AND DROP CABINET DESK.



The highest achievement and latest production in Writing Machines

As I am receiving requests for exchanges daily from parties who have the old style type-bar machines, and as I am thus securing hundreds of second-hand Remingtons and Caligraphs at very low prices, I am able to offer these latter machines in many cases as good as new at prices that defy competition. Write and see!

P. H. Sercombe, Prop. MILWAUKEE TYPE-WRITER AGENCY.

Ropp's Commercial Calculator.

New and revised edition in gold, cloth, beautifully embossed in colors, with silicate slate, sent to any address post-paid for seventy-five cents. The time and labor saved by the use of this valuable pocket assistant is great, indeed. Address, United States Miller, Milwaukee, Wis.

To every Lover of Good Reading:

DEAR FRIEND—Mr. Will C. Turner, the well-known Publisher and Managing Editor of CITY AND COUNTRY, that excellent 16 page monthly magazine published at Columbus, Ohio, has recently made an offer in connection with his publication which should certainly be accepted by you. CITY AND COUNTRY has been regularly published at the rate of \$1 per year, for the past seven years. Mr. Turner is anxious to increase his already large circulation within the next three months to 50,000 regular subscribers more.

To accomplish this purpose, believing that every subscriber will, at the expiration of their subscription renew, he has devised the following plan:

Every person desiring to become a subscriber to the CITY AND COUNTRY, which, by the way, contains each year four to five continued stories, thirty to forty illustrations in each issue and a large amount of interesting reading—especially so to the ladies—is requested to carefully and plainly to write out two complete copies of this letter and sign your name at the bottom. These copies must then be mailed by you to two of your friends in some other town or locality who are thereby requested to do just as you have done, viz: Write two copies and send to two of their friends, and so the work will go on and on. After mailing the two copies, the original letter which you copy from, together with a slip of writing paper, cut about the size of a postal card, with your address plainly written on one side and the address of the two to whom you have sent the copies on the other side, and 25 cents in silver or postage stamps must be enclosed in a letter and mailed to Will C. Turner, Columbus, Ohio. On the receipt of these you will be placed on the subscription list for one year, the copy for the present month will be promptly mailed, and also, which is the greatest reason why you should accept this offer, five complete novels in pamphlet form will be sent you by mail, post-paid, which would regularly cost one dollar each if bound in cl. th. Do not let the opportunity pass, as Mr. Turner only proposes to let this offer stand for a short time. True, it requires some time and work to copy all this twice, but you will be most handsomely rewarded for it.

[Signed,]

SITUATION WANTED.

Situation wanted by a German miller. Several years' experience in Germany with both roller and stone system. Prefer situation in a neat country mill. Address Wenzel Koerbl care of the Thomas House, Fourth street, Milwaukee, Wis.



Fast Mail Line with Vestibuled Trains between Chicago, Milwaukee, St. Paul and Minneapolis.

Trans-Continental Route between Chicago, Council Bluffs, Omaha and the Pacific Coast.

Great National Route between Chicago, Kansas City and St. Joseph, Mo.

5700 Miles of Road reaching all principal points in Illinois, Wisconsin, Minnesota, Iowa, Missouri and Dakota.

For maps, time tables, rates of passage and freight, etc., apply to the nearest station agent of the CHICAGO, MILWAUKEE & ST. PAUL RAILWAY, or to any Railroad Agent anywhere in the World.

ROSWELL MILLER, A. V. H. CARPENTER,
General Manager. Gen'l Pass. & Tkt. Agt.

For information in reference to Lands and Towns owned by the CHICAGO, MILWAUKEE & ST. PAUL RAILWAY COMPANY, write to H. G. HAUGEN, Land Commissioner, Milwaukee, Wisconsin.

THE CHICAGO AND NORTH-WESTERN RAILWAY.

OVER 7,000 MILES

Of steel track in Illinois, Iowa, Wisconsin, Michigan, Minnesota, Nebraska, Dakota and Wyoming, penetrates the Agricultural, Mining and Commercial Centres of the **WEST AND NORTHWEST.**

The Unrivalled Equipment of the Line embraces Sumptuous Dining Cars, New Wagner and Pullman Sleepers, Superb day Coaches and

FAST VESTIBULED TRAINS

Running direct between Chicago, St. Paul and Minneapolis, Council Bluffs and Omaha, connecting for Portland, Denver, San Francisco and all Pacific Coast Points.

ONLY LINE TO THE BLACK HILLS

For Tickets, Rates, Maps, Time Tables and full information, apply to any Ticket Agent or address the Gen'l Passenger Agent, Chicago, Ill.

J. M. WHITMAN, E. C. WICKER, E. P. WILSON,
General Manager. Traffic Manager. Gen'l Pass. Agt.

NOTES

from the diary of tourists, commercial travelers, business men and others has revealed:

That the **Wisconsin Central** has the unqualified endorsement of all:

That the **Wisconsin Central** has to-day the most popular line between Chicago and Milwaukee, and St. Paul Minneapolis and the Northwest;

That the **Wisconsin Central** is daily adding to its admirers as the recognized Pullman line between Chicago and Milwaukee and Ashland, Duluth and Lake Superior;

That the **Wisconsin Central** touches the most prominent points in Wisconsin, and that it has more important business centers on its through line than any other railway to and from the Northwest;

That the **Wisconsin Central** has made an enviable reputation with its peerless Dining Car Service;

That the **Wisconsin Central** runs fast trains on which all classes of passengers are carried with commodious and distinct accommodation for all;

That the **Wisconsin Central** has representatives distributed throughout the country, who will cheerfully give any information that may be desired and that its terminal Agents are specially instructed to look after the comfort of passengers who may be routed via its line.

For detailed information, apply to your nearest Ticket Agent; or to representatives of the Wisconsin Central Company.

WM. S. MELLER, JAMES BARKER,
General Manager. Gen'l Pass. & Tkt. Agt.

LOUIS ECKSTEIN,
Asst. Gen'l Pass. & Tkt. Agt.

MILWAUKEE, WIS.

ALL persons desiring to reach the entire milling and grain trade of America, by circular or otherwise, should obtain a copy of **CAWKER'S AMERICAN FLOUR MILL AND ELEVATOR DIRECTORY FOR 1888.**

We shall be pleased to receive from any of our readers, short, crisp, sensible letters on subjects of interest to the flour and grain trade for publication.

EXPORTING millers should write to the Riverside Printing Co., Milwaukee, Wis., for the best Flour Cable Code ever published. There are more copies of this Code in use than of ALL other flour codes published. It is simple and accurate.



IS THE DIRECT AND MOST POPULAR LINE AND Through Sleeping and Parlor Car Route

FROM CHICAGO and MILWAUKEE

TO STURBOYAN, MANITOWOC, APPLETON, NEW LONDON AND WAUSAU,

TO ALL THE IMPORTANT TOWNS IN THE Gogebic, Penoque and Montreal Iron Ranges, HURLEY, BESSEMER, IRONWOOD, WAKEFIELD AND GOGESIC,

TO **ASHLAND, SUPERIOR and DULUTH**

To all Fox River Manufacturing Cities and

The Lumbering Districts of Northern Wisconsin and Michigan.

SPORTSMEN The best Fishing and Hunting in the NORTHWEST reached by the **ASHLAND ROUTE.** Send to the General Passenger and Ticket Agent for descriptive and illustrated Publications, Maps, Folders, Time Cards and General Information.

Milwaukee Office, 95 Wisconsin St.

H. G. FLEITH, F. P. REGAN,
Com. Freight Agt. City Pass. & Tkt. Agt.

H. F. WHITCOMB, GEO. S. MARSH,
General Manager. Gen'l Pass. & Tkt. Agt.

MILWAUKEE.

Milwaukee & Northern R. R.

SHORT LINE

Marquette, Negaunee, Ishpeming, Hancock, Houghton, Champion, Republic, Iron Mountain, Menominee, Mich.

Marinette, Green Bay, Depere, Neenah, Menasha, Appleton, Wis.

THE TABLE OF EXPRESS TRAINS.

STATIONS.	DEPART.	ARRIVE.
Champion, Republic,	*1:35 A. M.	*3:20 A. M.
Iron Mountain, Menominee,	*1:35 A. M.	*3:20 A. M.
Marinette, Green Bay,	3:10 P. M.	3:55 P. M.
Depere,	*7:35 A. M.	
Green Bay, Depere, Appleton, Menasha, Neenah,	7:55 A. M.	3:55 P. M.
	3:10 P. M.	10:20 A. M.

*Daily, except Monday. All other trains daily except Sunday. Pullman Sleeping Cars are run on all night trains, and are ready for occupancy at 9:00 P. M.

New Passenger Station, Fourth Ward Park.

C. F. DUTTON, W. B. SHEARDOWN,
General Manager. General Ticket Agent.

A NIGHT IN CHICAGO

NIGHT TRAIN

INDIANAPOLIS.

MONON ROUTE

LOUISVILLE, NEW ALBANY & CHICAGO BY

HAS A TRAIN

Leaving Chicago

AT 11:40 P. M.

EVERY NIGHT (Sundays included), with THROUGH COACHES and PULLMAN SLEEPERS, ARRIVING INDIANAPOLIS at 7:30 A. M.

ADDITIONAL TRAINS leave Chicago for Indianapolis at 8:15 A. M. and 8:20 P. M.

Ask your home Agent to make your tickets read via the MONON ROUTE, so your comfort may be assured. For further information, Sleeping Car berth, etc., call at

CITY TICKET OFFICE, No. 73 CLARK ST.

—OR AT THE—

DEARBORN STATION, CHICAGO.

E. O. McCORMICK, Gen'l Pass. Agent, CHICAGO.

DO NOT DELAY YOUR SUBSCRIPTION FOR LIPPINCOTT'S MAGAZINE, which now stands in the front rank of monthly publications and occupies the position of

A LEADER AMONG LEADERS.

Each number contains A COMPLETE NOVEL, as well as a liberal quantity of miscellaneous matter of an interesting and instructive nature. One year's subscription gives

A LIBRARY OF 12 COMPLETE NOVELS by American authors, together with AN ABUNDANCE OF SHORT STORIES, POEMS, ESSAYS, and matters of unusual interest to general readers, making

A VOLUME OF NEARLY 2000 PAGES.

The success of LIPPINCOTT'S stands unrepresented in the annals of Magazine publishing, and to-day its familiar title is welcomed in every hamlet, village, town, and city throughout the United States.

The best writers of the age have been secured and new features will, from time to time, be added which will give to LIPPINCOTT'S

A DISTINCTIVE PLACE OF ITS OWN.

Amelia River, Edgar Saltus, John H. Robertson, Edgar Fawcett, Captain Charles King, U. S. A., Grace King, M. Elliott Sewell, Selma Delano, Maurice Barrymore, Ouida, and many others will contribute to its pages for 1889. For full prospectus, address Lippincott's Magazine, Philadelphia. 25 cents single number. \$3.00 per year. Send for sample copy.



THE THROUGH CAR LINE FROM AND TO CINCINNATI

WITH THROUGH CAR SERVICE BETWEEN

CINCINNATI and INDIANAPOLIS, CINCINNATI and TOLEDO and DETROIT, CINCINNATI and CHICAGO, CINCINNATI and ST. LOUIS,

CINCINNATI and DAYTON and RICHMOND, CINCINNATI and FT. WAYNE and GRAND RAPIDS, CINCINNATI and GREENVILLE and VAN WERT.

With THROUGH RECLINING CHAIR CAR between

CINCINNATI, DECATUR and SPRINGFIELD, ILLS. and KEOKUK, IOWA, (daily)

PARLOR CHAIR CARS ON DAY, and SLEEPERS ON NIGHT TRAINS, "YEAR 'ROUND."

Ask for Tickets via C. H. & D. R. R.

For full information, Tickets, Sleeping Car Space, &c., Inquire of or Address, W. H. Fisher, Gen'l Agt., Indianapolis, Ind. W. H. Whittlesey, Central Pass'r Agt., Dayton, O. John B. Stable, District Pass'r Agt., Toledo, O. D. B. Tracy, Northern Pass'r Agt., Detroit, Mich. Wm. A. Wiggins, Southern Passenger Agent, Chattanooga, Tenn. J. G. Mason, City Passenger Agent, Cincinnati, O.

Or General Passenger Agent's Office, - No. 200 W. Fourth St., Cincinnati, O.

C. C. WAITE,
Vice-Pres't & Gen'l Manager.

CHAS. H. ROCKWELL,
Gen'l Pass'r & Ticket Agent.

Chicago & Grand Trunk R'y

NIAGARA FALLS AIR LINE

Is the Shortest and Most Direct Route East.

THROUGH SLEEPING AND PARLOR CARS TO

New York, Montreal and Boston.

The Only Line running Through Sleeping Cars between

CHICAGO and PHILADELPHIA

Via NIAGARA FALLS Without Change.

Trains leave Dearborn Station at 9:05 a. m., 3:25 p. m. and 8:15 p. m. 8:15 p. m. train has elegant Pullman Sleeping Car to Detroit daily.

2nd class tickets good on all trains.

W. E. DAVIS, E. E. HUGHES, B. C. MEDDAUGH,
Gen'l Pass'r & Ticket Agent, Pass'r Agent, Nor. Pass'r Ag't,
CHICAGO. CHICAGO. 93 Wisconsin St.,
MILWAUKEE.

STEAMSHIP TICKETS

To or from Europe at lowest rates, by all lines. Cabin plans can be consulted and best accommodations secured as far in advance as desired.

Information furnished by mail or on application at office, 99 Wisconsin St., southwest cor. Broadway.

B. C. MEDDAUGH, Gen'l S. S. Agent,
MILWAUKEE, WIS.

GREAT BARGAIN FOR OUR SUBSCRIBERS.

Readers of the UNITED STATES MILLER can secure one year's subscription to that charming journal, **THE LADIES HOME COMPANION**, for only 10 cents additional; that is, both journals, the UNITED STATES MILLER and the Ladies Home Companion, will be sent one year to any address for one dollar and ten cents (\$1.10). The

LADIES' HOME COMPANION

A Practical Household Journal.



Stands without a peer in literary excellence, typographical beauty, suggestive illustrations and helpful advice for every department of home life. It is beautifully illustrated, printed on fine, cream tinted paper, and has a more brilliant array of contributors than ever before, consisting of

Eight Regular Editors and Scores of Eminent Writers,

Whose facile pens will furnish Short and Continued Stories of absorbing interest, while all branches of household economy that can possibly come within the good housewife's province will be ably treated.

10 cents additional to the regular subscription price of the United States Miller will secure that charming periodical, the Ladies Home Companion, one year (24 numbers), each copy equal in size, quality and amount of reading matter to other illustrated papers that cost 10 cents a copy or \$4.00 a year.

Read a brief outline below of the subjects treated in the Ladies Home Companion:

PRACTICAL HOUSEKEEPING. This department is a well-spring of valuable suggestions for every branch of housekeeping, including a large variety of tested recipes, and how to prepare them at the least expense, in dainty and appetizing forms; also, hints for table decorations, methods of work, etc.

FANCY WORK. DECORATIONS. These departments give elegant illustrations and plain directions showing how to make all kinds of fancy work, embroideries, needlework, crocheting, knitting, suggestions for ornamenting rooms, decorating furniture, curtains, etc.

FASHIONS, OR, WHAT TO WEAR AND HOW TO MAKE IT. Artistic illustrations and descriptions of, with the newest and latest Styles and Novelties in Ladies' and Children's Dresses, Hats, Bonnets and other garments, with directions that enable one to dress well and economically.

MOTHERS find the portion devoted to them invaluable, and filled with a wide range of helpful suggestions obtained from practical experience relating to a mother's duties.

OCCUPATIONS FOR WOMEN. The Ladies Home Companion aims to keep women informed in reference to those things that wives, mothers and single women are doing to earn money, while in all its departments it is the most complete, most readable and

Most Fascinating Ladies Paper Published.

ETIQUETTE at home and abroad, at the table and on the street, at public gatherings, etc.

SEASONABLE BILLS OF FARE are given, with plain directions for the economical preparation of healthful, nourishing and palatable dishes, with hints for serving, arrangement of table, reception of guests, etc., etc. Also menu

for parties, teas, receptions, Thanksgiving and Christmas dinners.

TOILET.—Recipes and hints for care of hands, face, teeth, eyes, hair, etc., color and harmony in dress, etc.

DEPARTMENT.—Rules, usages and ceremonies of good society, letter writing, good manners, the art of conversing well, accomplishments, home training.

Address, THE UNITED STATES MILLER, Milwaukee, Wis.

G. M. MANN.

F. P. MANN

MILWAUKEE BAG COMPANY,

MANUFACTURERS OF

COTTON, PAPER AND JUTE GRAIN AND FLOUR SACKS

DEALERS IN

TWINES, CENTALS, ETC.

TELEPHONE NO. 427.

No. 134 West Water Street,

MILWAUKEE, WISCONSIN.

SCHIEREN'S
OAK-TANNED
LEATHER BELTING

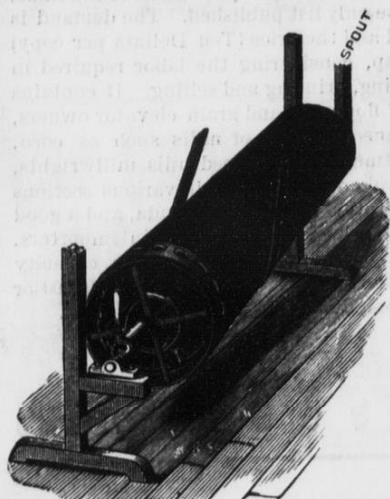


Cotton Belting and Hose "Gold Seal" Rubber Belting.

372 & 374 EAST WATER STREET
MILWAUKEE.

131 EAST THIRD STREET
ST. PAUL.

201 NICOLLET AVENUE
MINNEAPOLIS.



PRINZ Patent Improved Cockle Machine.

The Most Durable, Simple and Efficient Machine for the purpose on the market.

CENTENNIAL MILLS,
EVANSVILLE, IND., June 14, 1887.
FAUSTIN PRINZ & CO., Milwaukee, Wis.
GENTLEMEN:—Enclosed please find check in payment of Cockle Machine sent us May 26, 1887. The Machine does its duty.

May 23rd, 1888.
The Cockle Machine you sold us a year ago doing its work as well now as it did in the start and has not cost us a dime for repairs yet.

Respectfully yours,
J. W. LAUBSCHER & BRO

MANUFACTURED IN FOUR SIZES.

PRINZ & RAU MFG. CO., MILWAUKEE, WIS.

Write for Descriptive Pamphlet.

[Please mention this Paper when you write.]



WILLSON Spring Whiffletree



Designed to Make the Burdens of Laboring Horses Easier, and to Keep them in Good Working Condition.

These trees will commend themselves to every owner of Laboring Horses, for the reason that the load is constantly balanced on the spring, making it impossible for the horse, harness or wagon to receive any sudden shock or jar. Some of the benefits derived from their use are as follows:

Prolongs the Life of the Horse; Prevents Sore Shoulders, Stiffness of Limbs, Reluctance in Pulling and Destruction of Harness.

Send for Catalogue and Prices.

AGENTS WANTED.

THE JEFFREY MFG. CO.

169 E. 1st Ave., COLUMBUS, O., U. S. A.

[Jan. 89.]

FRATTINGER,

City Tailor

389 Broadway,

MILWAUKEE.

THE GREATEST SUCCESS OF THE DAY!

THE NEW ERA SCALPER

Read the following Testimonials and then write us for particulars:

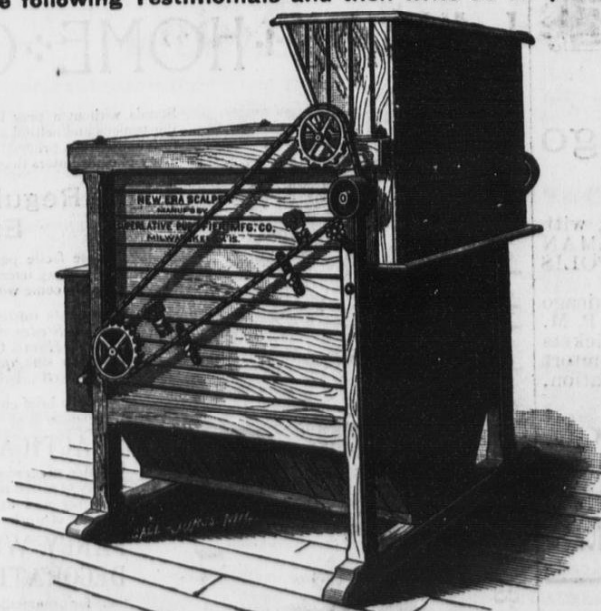
TESTIMONIAL.

CARLINVILLE, ILL., Feb. 16, '89.
Superlative Purifier Co., Milwaukee.

DEAR SIR: It affords us great pleasure to say that the New Era Scalpers are giving the very best of satisfaction, and the longer we use them the better we are pleased. Our Patent as well as the grade below the Patent have been improved considerably with no other change in the mill than scalping with your machines. They require nominal power, and, in a word, are a big success.

Yours truly,

HENRY C. YAEGER,
Pres't Yaeger Flour Mill Co.



TESTIMONIAL.

YOUNGSTOWN, O., Dec. 7, '88.

DEAR SIR:

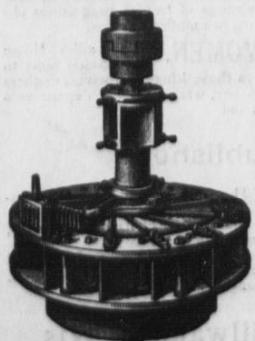
In order to put in your scalpers on our 2d, 3d, 4th and 5th breaks and retain our hexagon scalpers for wheat cleaners, I was obliged to add another story to our roller room, at an expense of five times as much as the cost of the machines. Having now run the machines for thirty days, I feel satisfied with the expenditure made, as I think we are now making the nicest flour we ever made. Our 2d, 3d, 4th and 5th break flour (we make eight breaks) is as white and clean as our patent, while our flour all through is the best we ever made. Our hexagon scalpers make excellent wheat cleaners, and your machines make excellent scalpers. The two combine make excellent flour.

Respectfully yours,
HOMER BALDWIN.

One Machine will handle 4 Breaks in 75 bbl. mill, or 1 Break in 500 bbl. mill.

Break Flour as white as any.

For Prices, etc., address: SUPERLATIVE PURIFIER MFG. CO., MILWAUKEE, WIS.



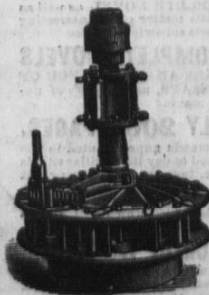
JAMES LEFFEL'S IMPROVED Water Wheel

Fine New Pamphlet for 1888.

The "OLD RELIABLE" with Improvements, making it the Most Perfect Turbine now in use, comprising the Largest and the Smallest Wheels, under both the Highest and Lowest Heads in this country. Our new Pocket Wheel Book sent free. Address,

JAMES LEFFEL & CO., Springfield, Ohio,
and 110 Liberty St., New York City.

[Please mention this paper when you write to us.]



POOLE & HUNT'S Leffel Turbine Water Wheel

Made of best material and in best style of workmanship.

Machine Molded Mill Gearing

From 1 to 20 feet diameter, of any desired face or pitch, molded by our own SPECIAL MACHINERY. Shafts, Pulleys, and Hangers, of the latest and most improved designs.

Mixers and General Outfit for Fertilizer Works.

Shipping Facilities the Best in all Directions.

POOLE & HUNT, Baltimore, Md.

N. B.—Special attention given to Heavy Gearing for Pulp and Paper Mills.

[Mention this paper when you write to us.]